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ABSTRACT

A study examined the impact of public policy on education and training in the private sector. During the study, the following research activities were completed: a statistical examination of the scope and nature of firm-supplied training, 20 case studies of the training supplied by large firms representing a diverse set of industries across the country, and a review of key public policies and programs. These analyses indicated that of the approximately 5 million workers now receiving formal training in the workplace, approximately 3.5 million are participating in programs financed and organized (but not necessarily conducted) by firms. Generally speaking, training is being offered to comparable numbers of men and women; however, minorities and those individuals with the least prior education still remain the least likely to receive firm-sponsored training. Most of the training provided by the firms studied was job specific and highly sensitive to business cycles. Although the decentralization of job training programs should be extended, policymakers should continue to recognize the importance of the Federal Government as a modest, yet necessary unifying force in shaping policies for the delivery of firm-sponsored training and should formulate legislation concerning educational appropriations and taxes accordingly. (MN)

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TRAINING'S POLICIES:
PUBLIC AND PRIVATE REINFORCEMENT FOR THE AMERICAN ECONOMY

Final Report

The Impact of Public Policy on
Education and Training in the
Private Sector

Martin Meyerson Robert Zemsky

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TRAINING'S POLICIES:
PUBLIC AND PRIVATE REINFORCEMENT FOR THE AMERICAN ECONOMY

Martin Meyerson Robert Zemsky

University of Pennsylvania

1985

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THE SETTING

At the conclusion of our study, Peter Drucker's observation still resounds with important implications: "Demand for education is actually going up, not down. What is going down, and fairly fast, is demand for traditional education in traditional institutions." In our analysis of how and why American firms train their employees, and of public and private policies for training and retraining, we were struck by the trend toward untraditional forms of education, even within the realm of traditional educational institutions.

At the same time, we saw that both traditional and untraditional education had become, in many senses, career-directed. The experience of several recessions has led to a predominant emphasis on education and training for jobs, to the detriment of intrinsically valued learning, particularly in colleges and universities.

Setting out to trace the effects of new demands on firm-supplied training, we discovered parallel effects in community colleges and, to a lesser degree, four-year colleges and universities. This study was built on our sense--shared with other observers--that the evolution of firm-supplied training was an important example of marketplace stimulation that could benefit shareholders, managers, workers, and customers alike. Not only was the incidence of firm-supplied training apparently growing, but

job training efforts, though experiencing problems of their own, seemingly suffered few of the difficulties plaguing educational institutions. As the National Institute of Education recognized in commissioning this study, firm-supplied training represented a significant contribution to economic welfare about which researchers and policy-makers knew little.

Now, after statistical studies of the scope and nature of firm-supplied training, after completing twenty case studies primarily (but not exclusively) at large firms representing a diverse set of industries, and after reviewing key public policies and programs, we have come to see in firm-supplied training both a more complex and more limited activity than we had suspected.

We learned from our analysis of Bureau of the Census data covering the period from 1969 through 1981 that while firm-supplied training has increased since the late sixties, its growth rate has paralleled that of the labor force itself. There are now approximately 3.5 million workers in formal training programs financed and organized (but not necessarily conducted) by firms. Government training programs for public employees have grown to include about 1.5 million workers. The annual total, then, of those receiving training, excluding the military, is about 5 million workers. The proportion of the employed work force

currently being trained (excluding the military) is about 5 percent. These figures do not include informal, buddy-type, on-the-job training, which is of huge proportions but almost impossible to document.

We saw that in the 1970s firms throughout the United States invested substantially in training to improve the skills of women. Now, training is offered to comparable numbers of women and men.

We found too that the more prior education a worker has, the more likely he or she will be to receive additional training. The chances of receiving training for those holding high school diplomas are about five-times greater than for those without. The most frequently-trained workers are between the ages of 25 and 34. Workers younger than that receive less than half the training given those who have completed their secondary educations or have demonstrated their maturity within the firm. Moreover, engineering, technical, and other professional workers receive twice as much training as does the general work force. Collectively, these three groups account for three-quarters of the formal training supplied by firms. Minorities, who continue to be disadvantaged in the labor market, receive the least training. In sum, the higher the skill requirements and status of a job, the more extensive formal training the employing firm will make available.

Much of the focus of training in the private-sector is on sales, particularly in firms whose primary customers are other firms and whose products are technically complex. Most large firms provide some, and many offer extensive, management training, emphasizing interpersonal skills, general administration and decision-making, and finance. Particularly when skills are in short supply, firms may cover tuition fees, allow for time off, or both, so that employees may complete courses outside the firm. These allowances usually are calculated by the firms as business expenses. A few firms--Arthur D. Little and wang Laboratories are examples--offer in-house degrees.

Senior executives consider training to be an investment in the human capital of their employees, the returns of which will increase employee productivity and improve performance quality. They may have additional, unstated objectives for providing training programs. In some cases, creating loyalty to the firm carries equal, if not greater, importance than increasing individual efficiency. Training may be directed toward cultivating smooth teamwork, recruiting staff, sifting out the best recruits for continued employment, developing employee job satisfaction, achieving fairness in employment opportunities, singling out fast-trackers, or, especially in large, diversified firms,

establishing communication networks that reinforce the firm's culture and way of doing business.

We observed, as we had expected, that most firm-supplied training is job-specific. As largely a tactical response to current problems, firm-supplied training is based on present demand and, in that sense, is reactive. Training managers often describe their roles as those of problem-solvers, charged with ensuring that key employees acquire the competencies needed to perform their jobs.

Given the mobility of American workers, firms worry about providing workers with generic training only to lose them to other employers. Understandably, the most extensive training programs occur principally in firms with low turnover (and high employee loyalty to the firm) and with high margins of profitability. In analyzing cause and effect, one can argue that profitability encourages low turnover by permitting higher salaries and wages. On the other hand, high productivity (and profitability) may be reinforced by extensive training.

In most of our twenty firms, we began our studies by speaking first with the chief executive officer. In each case we sensed a commitment to training in general, to the firm's training efforts in particular, and to company-financed training outside the firm. However, we also found

that training is rarely high on the agenda of top executives, seldom reviewed by boards of directors, generally isolated from the planning function, infrequently associated with research and development, and hardly ever costed carefully. We discovered that costing was obscured partly because of training's decentralization, and partly because it is most often categorized as a general overhead expense. Training managers--vulnerably low in company hierarchies--are often pleased that costs are obscured.

The scale of firm-supplied training is particularly sensitive to business cycles. The budgets and staffs of training programs and departments are often among the first to be cut in the face of worsening times. Still, that reduction in training is not so much a permanent loss as a deferment until good times. When the economy expands and a firm's prospects improve, the willingness to invest in human capital generally returns with sufficient force to recover the underinvestment of recession years.

The job market for many years has supplied firms' demands for both skilled and unskilled workers. Firm-supplied training has valuably filled the market's gaps. Thus, if all other factors were to remain equal, aside from the continuing need to provide training and employment opportunities to the disadvantaged, there would be little

need to do more than encourage firms to seek out the best training for their workers.

Other factors, however, cannot be held constant. The overall proportion of the U.S. population over 25 years of age is expected to increase significantly through the remainder of this century. A number of circumstances have contributed to this trend--not the least of which was the "baby bust" of the 1960s and 1970s, which followed the "baby boom" of the previous two decades. The aging of the population is anticipated to affect the workforce in general, and training needs in particular, both directly and indirectly. For example: as today's large numbers of younger workers mature, they will expect the jobs with promotion ladders, good wages, benefit packages, and other opportunities that were generally available in the past, but may be scarce in the future; training programs will require re-orientation toward the needs of an increasingly middle-aged workforce; and finally, as medical advances continue to extend life-expectancy, the workforce may expand to retain workers above current retirement age.

At the same time, we may actually face a shortage of first-time workers over the next two decades. If the economy were to grow at even a modest rate over the next ten years, the result could be a substantial inversion of those demographic and economic forces that, in the 1970s, spawned

so many service enterprises whose profitability depended upon minimum wages and subsidized training and capital. In the 1980s and 1990s, not only will the 1970s' "young workers" become increasingly persistent in their search for better jobs, but the relative shortage of new first-time workers could increase entry-level wages. (In no way are we suggesting that there is not a continuing problem for minorities and other disadvantaged groups in obtaining suitable entry-level jobs.)

Another important factor is technological change, with its widespread implications for international competition. In some industries, such as steel, we find ourselves at a disadvantage, due both to relatively high U.S. wage rates and our often-outmoded facilities and equipment. (The mills of a number of other nations, including certain newly-industrialized countries, such as Korea, are sometimes more technologically advanced than their American counterparts.) In other industries, such as automobile manufacturing, the successful introduction of new technologies in general, and robotics in particular, will result in smaller work forces.

Even the new "high tech" industries--the development of which has been encouraged as a means of economic revitalization by states and localities faced with loss of jobs--are seldom large employers, and hire chiefly for low-wage assembly activities, which are themselves subject to

eventual automation. If current trends continue, it is likely that U.S. manufacturing industries, which currently employ about 20 percent of the work force, will employ no more than 10 percent by the end of the century. This estimate, however, does not take into account the inventiveness of the American people, who can potentially contrive innovative products--and industries--of a totally new breed. The continuing and substantial reduction of employment in existing manufacturing industries may be mitigated by the introduction of new enterprises based on ever-changing consumer preferences and demands.

In any case, we expect that fundamental shifts in the structure of the labor force--and in the nature of work itself--will create a national demand for training that neither current practices nor practitioners are likely to supply. More and more, what we as a nation will require will be both a highly adaptive and a highly skilled work force. Increasingly, workers will be expected to change jobs often, learn new skills, and become more adept at providing services. While fewer production workers may be needed, these will have to be more highly skilled generalists than they are today. An economic environment characterized by informal on-the-job training and considerable remoteness between universities and firms will not suffice as it once did. Accordingly, the way in which firms (and to

some degree governments) manage trade-offs between investments in physical and human capital greatly influence the long-term growth of the American economy.

We use the word "training" to include the concept of retraining as well, for the two are no longer distinct enterprises. In the past, training has generally implied instruction for entry-level tasks or possible advancement for workers and managers both. It has encompassed informal on-the-job instruction, carried out by co-workers, as well as formal training, paid for by the firm and implemented either by the firm's own trainers or by hired consultants. Training has also referred to the learning and enhancing of skills outside of firms--at public, independent, or proprietary schools, or at colleges and universities--funded by employers, employees, or government. Retraining, on the other hand, has generally meant refitting for new careers those workers who have been displaced because of new technologies, foreign competition, or cyclical downturns in the economy. But the old definitions are blurring. As we suggest, over the next fifteen years changes in America's economy, technology, demography, and international competitive position will necessitate the refitting of virtually the entire work force, and a major restructuring of training for new workers.

Certainly, the need for training must be understood in a larger context; other requirements must also be met if our economy is to thrive. The signs of heightened international competition can be seen in many current trends: manufacturing firms moving offshore; establishments shutting down altogether; U.S. technology being licensed abroad; other nations producing higher value-added goods; and the trade deficit reaching over $123 billion in 1984--three times the figure for 1981.

Though we do not intend to be crisis mongers, we warn against a scenario in which, for instance, the United States imports a major portion of its goods and exports mainly raw materials, and when overwhelming numbers of American workers are employed in "taking in each others' washing"--producing few tangible products.

The current economic upturn may be temporary. To preserve and strengthen it will require cutting the federal debt, sharply reducing the trade deficit, stabilizing foreign exchange rates, increasing savings rates, dealing with the debt repayment problems of developing countries, eliminating unfair practices among our trading partners, and encouraging greater productivity on the part of both management and labor, with training as a vital factor. In this setting, and in conjunction with these other actions, more effective policies for training are essential.

Before we can have more effective policies, there must be an understanding of training's value. In this period of rapid as well as continuous technological and economic change, we emphasize the value of training for almost the entire work force. Training in the private sector, supplemented by government when necessary and by institutions of higher and basic education, is vital. This assertion is an article of faith. Implicit to this faith is the recognition that training has not always been efficacious, but that it is nevertheless a principal available option for improving productivity. Even with greater capital investment in some economic activities, greater investment in the labor force is required in order for the United States to compete more adequately in world markets, impede the migration of jobs to other countries, adapt to necessary shifts in available jobs, and maximize its own technological and scientific inventiveness.

We are encouraged by the growing number of business, labor, and non-partisan groups, as well as researchers, who share our sense that training is of critical importance. The influential Business Roundtable, for example, through its Employment Policy Task Force, reported in the spring of 1984 that its membership "views the employment security of its work force as a major corporate objective." The Roundtable recommended that its members and other employers

"promote retraining, wherever possible, to displaced employees in order to qualify them for new and existing jobs." This statement included proposals for job search assistance, income supplements, timely information on job losses, and other methods of aiding displaced workers. The Roundtable's Task Force urged the elimination of regulations that restrict training (for instance, certain aspects of the unemployment insurance system).

As we analyze the issues of training and job development, we conclude that not only are increasing numbers of groups and individuals concerned about training and relevant private and public policies, but much of their thinking is drawing toward a consensus as to the character of required policy initiatives.

Our own orientation, based on our studies, is toward a policy in which government plays a modest, supplemental role. We emphasize that among the virtues of the American federal system are the opportunities that derive from decentralized decision-making, carried out by state and local governments. Much of public responsibility for training in the past few years has been delegated by the federal government to the states. The decentralization of job training programs is sound, and should be extended, but with recognition of the importance of the federal government's role as a modest, yet necessary unifying force. We

think that leadership and catalytic roles on the part of the federal government (beginning with the Office of the President) are more important than federal actions that require large public expenditures. The federal government should provide a clearinghouse to facilitate the gathering and sharing of training data and experiences. It is needed as a moderator, to help alleviate inevitable frictions, particularly among the diverse government programs themselves. For activities clearly beyond the purview of individual states and localities, and beyond the range of private firms, the federal government has a supplementary responsibility.

Joining in the growing acknowledgement of training's importance, we outline a set of policy recommendations, some of which are also advocated by others. Since job training and development cannot be examined in isolation, many of our proposals are linked to broader issues of education and the economy.

Our policy proposals address the following topics:

- Education and Training
- Improved Training Within Firms
- Unions and Training
- Training for and by Small Businesses
- Training Bank

- Tax Incentive Policy and Training
- Training Aspects of Unemployment Insurance and Work Sharing
- The States and their Localities
- Inter-Agency Center for Training Coordination

EDUCATION AND TRAINING

Few public policies are more important for training than those concerned with improving the vitality of education, particularly basic education. Training cannot be discussed fully without reiterating the conviction that a well-educated work force is prerequisite to economic maintenance and development. Sound training builds on the foundation of skills acquired through early schooling. The more educated individuals are, the more likely they are to receive and benefit from training. Ultimately, education and training are reciprocal: training is an extension of, and indeed, a form of education; and appropriate education is in turn the motivating force behind a person's search for life-long learning, including training. We are convinced, because the training of the work force is intricately bound to the quality and availability of education, that the two will be increasingly linked in the future, as continuous training for the entire work force (not just the unemployed) becomes a recognized factor in the enhancement of national productivity in a competitive world economy.

The United States devotes more money, time, and other resources to education (cum training) than any other major country in the world. Yet the U.S. is not regarded as having the best-educated work force; Japan and Germany, for example, have virtually no illiteracy, while some estimate that a fifth of the American population is "functionally illiterate." Our standing in mathematics is at least as poor.

It is because the United States values its educational aspirations so highly that many groups are now urging educational improvement in the public and private schools. Though we are not Jeremiahs about American education, we declare our support for the reevaluation of curricula, teaching methods, performance standards, special programs for targeted groups, and increased status and quality of teachers. We particularly stress the need for the private-sector and colleges and universities to contribute to this improvement.

The Core of Basic Education

Preparing students for entry into careers requires, more than anything else, instilling the capacity for ongoing learning and adaptation to changing circumstances. The nature of jobs will change gradually, but relentlessly, so that the labor scene fifteen years from now will be

qualitatively, quantitatively, and geographically altered. This ability to continue to learn and adapt requires fundamental knowledge--skills in reading, writing, computation, and reasoning; it also requires certain motivations and habits, which are more difficult for schools to inculcate. A quality secondary school serves as vitally in preparing students for future jobs as it does in preparing them for colleges and universities.

Our comments and proposals regarding basic education are addressed to the entire labor force--in both its parental and student roles. Our concerns are addressed as well to the business community, particularly in its influential capacity as a shaper of public expectations. Businesses should be even more persuasive than they have been in promoting basic education and in stressing its purposes. They are also in the position to encourage implementation of recommendations to be presented by the Committee for Economic Development in its upcoming publication, Investing in Our Children: Business and the Public Schools, regarding the application of managerial techniques to schooling. Investment in basic education is, in the long-run, repaid both directly and indirectly through gains in productivity and employment, with all of the benefits these imply.

We support the findings recently published in the report, High Schools and the Changing Workplace (1984), prepared by a panel from the National Academy of Sciences, the National Academy of Engineering, and the Institute of Medicine. The panel emphasizes that a high-quality secondary education is a minimum requirement for successful participation in the American economy. We are somewhat less concerned than they about the diploma credential (and believe it could be earned through equivalency tests), and regret that they did not examine in detail the issues of high school dropouts, the special features of vocational schools, or the cultural orientation that secondary schools should provide. We do, however, advocate their convictions concerning the essential development of basic, transferable competencies--the crux of a productive work force. Below we comment on a series of subject areas we consider crucial to basic education, and in doing so echo many of the panel's conclusions.

- Mastery of the English language. All young people, regardless of their first or other language, must master English and be competent in comprehension, in speaking, in vocabulary, and in listening.

- Reading. Reading is more than comprehending sentences. It demands the ability to identify and summarize ideas, recognize inconsistencies, and be able to evaluate and interpret information.

- Writing. Writing requires more than knowledge of correct syntax and spelling; it reflects the ability to organize and communicate information effectively.

- Computation. An understanding of numerical concepts is necessary to most employment and indeed to many aspects of life. While the Academy panel believes all students must master at least some elementary algebra, and that familiarity with geometry and trigonometry is desirable, we believe that the goal need not be mastery of those specific subjects as much as a comprehension of general mathematics and quantification. Even when people use machines for calculation, they need to be able to estimate, judge, and interpret quantitative findings.

- Social and economic studies. Employees are likely to contribute responsibly to productive enterprise if they comprehend the political economy and the social structure of the nation in which they live. To that end, they ought to develop an awareness of history, learn fundamentals of economics, understand the significant functions of governments and interest groups, and be able to distinguish values from facts.

- Science and technology. Scientific reasoning and literacy do not in themselves lead to high productivity. They can, however, by encouraging the questioning of present patterns, lay the foundation for innovation. The Nobel Laureate, S. E. Luria, of M.I.T., stated, "We live in a society in which there is a lot of talk about science, but I would say that there are not five percent of the people who are equipped by schooling, including college, to understand scientific reasoning." On this score, we are behind Western European countries, Eastern European countries, and Japan. We believe that scientific literacy and reasoning are such vital assets--not only to managerial and supervisory staff, but to most of the work force--that we call on industry to build upon current efforts to supplement scientific education in the secondary schools, by making some of their chemists, physicists, biologists, mathematicians, engineers, and others available to teach occasional classes in nearby schools. (Various firms have already engaged in "adopt-a-school" programs.)

- Industrial arts. It is important to combine the study of scientific reasoning with the practical handling of equipment and actual demonstration of the way things work. In this sense, the industrial arts can aid the comprehension of scientific reasoning and method. Industrial arts should be regarded, as they once were, as a

valuable aspect of basic education. We recommend that some instruction in mechanical, electrical and electronic, and information-handling tools, equipment, methods and processes, be offered not only for those intending to enter directly related careers, but for all students.

- Personal work habits and interpersonal relationships. If we are moving toward an increasingly bimodal job market, the most significant split may be not between "high" skill and "low" skill jobs, as many have argued. It may be, instead, between those jobs for the information-based portion of our economy, and those for a growing service economy. Implicit in a move toward an expanded service sector is the increasing centrality of interpersonal skills and personal attitudes. Development of the ability to exercise self discipline, understand assignments, work with others with or without supervision, and resolve conflicts should be a concern of basic education. We do appreciate, however, that these interpersonal skills, personal attitudes, and work habits are difficult to instill in formal school settings; they must be learned by example and by one-to-one nurturing and guidance. Since many corporate training programs have been emphasizing attitudinal and behavioral change, their training methods and experiences may be useful for future initiatives.

- Humanities and the arts. As William J. Bennett pointed out in his 1984 report on the Humanities in Education ("To Reclaim a Legacy"), few college graduates now "can be said to receive an adequate education in the culture and civilization of which they are members." This education must include more attention to the humanities. An appreciation of literature, music, and the other arts, as well as of past and present cultures, broadens the mind to the human experience and makes possible a greater understanding of diverse peoples--a valuable attribute in an interdependent world.

- International dimensions. The economies of the world have become intermeshed. Although the United States competes less effectively than it once did in international markets in some heavy industries and assembly-line manufacturing, it continues to be a world leader in certain high technology industries and "invisible" exports, such as professional services. A more competitive American economy will require large numbers of people with far greater knowledge of other nations and languages than now exists. That English has become the prevalent international tongue in economic development is fortunate, but not a sufficient advantage to preclude concern about our linguistic insularity. The Japanese, from a starting point of even greater insularity, have been mastering English, Spanish, and other important languages of the world economy. (There are more Japanese who are teachers of

English than there are Americans with knowledge of Japanese.) Foreign languages, including Japanese, should be offered increasingly and intensively to school children. Help from foundations, firms, and colleges and universities may be required. We propose that more firms consider offering language instruction, particularly as an addendum to sales and managerial staff training.

Vocational Education

Vocational education programs in the United States have had a long history, although not, of late, a happy one. The Morrill Act of 1862 set precedents for the allocation of funds for land grant colleges and universities in the industrial and mechanical arts as well as in agriculture. It also influenced later federal interest in, and funding for, practical education in the secondary schools. A Federal Commission of National Aid to Vocational Education, appointed in 1914, recommended federal grants to vocational education, on the grounds that the states did not have sufficient resources to meet determined needs. The Smith-Hughes Act of 1917 followed; various other legislation for vocational education has been adopted since that time. Initially, funds were designated for specific occupational training; by 1960, many states had broadened their vo-ed goals to include more general education.

The pervasively poor image of vocational schools is based on a number of impressions: that those with academic or behavioral problems are dumped into vocational education; that vocational teachers lack up-to-date skills (indeed, they are generally several years removed from direct contact with the practical subjects they teach); that equipment, machinery, and even tasks taught are obsolete; that the education is either too narrowly focused or too remote; that strategies are inadequate--with the result that unqualified teachers must be hired at the last moment when vo-ed enrollment swells; and that placement records are uneven or poor.

Yet vocational education still serves a large number of people. Approximately 12.5 million students are enrolled part-time or full-time in public vocational schools. Federal funds cover the expenditures of about one-tenth of that group. Vocational education's share of public education increased from 3 percent in 1970 to over 5 percent a decade later.

Our recommendations regarding vocational education are as follows:

- As suggested earlier, manual or vocational-type education should be included in the curricula of all schools. Inculcating an understanding of technology and of how things work, as well as an ability to reason, observe, accurately report

information, and think imaginatively, ought to be the goals of both the vocational and general school.

- At the same time, we would not abandon, without careful examination, presently functioning vocational education schools. Private Industry Councils, or PICs (as now reconstituted), local chambers of commerce, and firms ought to serve as consultants for the review of existing programs, looking toward improvements in organization, curriculum, staffing, and placement. The National Commission on Secondary Vocational Education, which recently reported to the federal government, shares much of this view.

- The success stories of vocational education should be analyzed. The Aviation Trades High School of New York City, for example, receives applications far outnumbering available spaces, and its graduates are almost always placed in jobs in the aviation industry.

- Business firms should lend staff and equipment to vocational schools and should help provide them guidance.

- Vocational education teachers should return to the appropriate fields for refresher experience on a regular basis--for instance, during summer recess. They should also receive broader exposure to the changing nature of work and economic conditions.

- Trial subcontracts to private vendors (proprietary schools) should be undertaken by vo-ed schools to determine how best to utilize profit-making educational institutions.

- Vocational schools should establish more links with firms' training functions, including training managers and trainers. Such ties, by encouraging a mutual flow of knowledge and experience, could be of considerable assistance to both.

Community and Junior Colleges

Almost five-million students were enrolled in 1,200 accredited two-year colleges in 1983, of whom more than three-fifths were part-time. Enrollment in vocational programs surpassed that in academic programs. Three-quarters of two-year colleges are public, with state or local funding (and a small amount of federal funds). The average cost of tuition and fees for 1983-84 was $588. When compared with four-year college students, those in community colleges are likely to be less affluent, older, and in need of remedial education. There are also many more blacks enrolled in these schools.

The evidence is unclear on how effective (in terms of future employment) education at community colleges is to the self-motivated, walk-in student. However, it is clear that local business has become increasingly involved with

community colleges to their mutual benefit. In 1980, 200 community college-business linkages were identified; by 1984, there were 600. The cooperative arrangements involve business aid to the colleges such as donation of equipment, lending of business staff to serve as teachers, or assistance in curriculum development. The colleges often aid the businesses by tailoring courses for the firms' employees to the specifications of the firms, or by offering courses at the firm. Both benefit from student placement and faculty assignments in the firms.

- Since firms, particularly in manufacturing, are more likely to possess state-of-the-art equipment than are community colleges, it often is advantageous to hold courses within plants or businesses. Of course, firms are concerned about their competitors and may not be eager to have outsiders--who may well not become part of their work force--training on their premises. Such arrangements are most feasible when the firm has no competitor within the community.

- There is much debate about how academic or practical occupational curricula should be. We suggest that strict distinctions between the two are not applicable. In an environment of rapidly changing technology, skilled workers must have sufficient grasp of general concepts to adapt to repeated, and often significant, modifications of their specific tasks. Now,

even from a "practical" standpoint, and across virtually all fields, this constant change demands increasingly that workers master broad concepts rather than focus strictly on narrow--and hence, easily outdated--approaches to tasks. Community colleges must recognize this trend and adjust their curricula and emphases accordingly.

- We recommend that community colleges utilize, to the greatest extent possible, technological aids that permit students to study at their own pace; television, video tapes, and computer-aided instruction are already being incorporated into instruction. This development should be encouraged by the pooling of teaching materials among neighboring community colleges.

Proprietary Schools

Proprietary, or profit-making, schools gear their programs to the market--particularly to the demands of their adult students. In 1980 there were over 6,100 such schools, two-thirds of which were accredited. Proprietary school students are eligible for federal funds under the G.I. Bill and, since 1972, for federal Basic Educational Opportunity Grants and insured student loans.

Proprietary schools are flexible, especially in scheduling. They typically have day and evening courses offered several times a year. Each course tends to be short

and skill-targeted. Some schools have good placement records, and a few offer lifetime placement services. Others do poorly in placing their gradutes. One study found that only a fifth of the graduates of some para-professional and middle-level technical programs obtained jobs in those fields.

The proprietary school tuition is at a mean of $1,600 for a program of about 1,000 hours, compared to a mean of under $400 for a public program of about 1,200 hours of instruction. The adult, employed worker who attends a proprietary school part-time, although eligible for tuition assistance, generally does not receive these scarce resources, which tend to be awarded instead to full-time, younger students. One study indicates that proprietary school enrollees typically are older, of lower income and less education than those who attend junior or community colleges.

- Proprietary schools should continue to be seen as important contributors to skills training.
- Publicly sponsored loans (and grants, when available) should be available to those enrolled in proprietary schools on a part-time basis.

- Proprietary schools should be considered, on an experimental basis, for contracts to furnish specific training to students of vocational schools, skill centers, and community or junior colleges. Proprietary schools may be able to contribute innovations in training to the public-supported educational and training systems as well as those operated by firms.

Colleges and Universities

Never before have American firms been cooperating more extensively with higher education. Firms have, for generations, recruited staff from colleges and universities--faculty and students alike. But, recently, education-industry partnerships and collaborations have been expanding, both in degree and scope. Relationships in each of three areas potentially benefit both the traditional educational institution and the firm:

1. Research. Firms sponsor ongoing research, request research help for specific projects, or generally bolster research-oriented departments. Objections have arisen, and continue to arise, when in certain business-academy partnerships academic freedom seems to be at risk--that is particularly the case when the preferences of firms are seen as determining research priorities. However, this problem may

exist with any sponsor, for example, foundations, government agencies, or individual donors. Indeed, as many industry officials become more sensitive to the requirements of universities, they are increasingly regarded as benign contributors.

2. Education. Under this rubric come a number of business-education interactions. The following are just a few examples.

   -- Firms hiring graduates--firms commonly send representatives to campuses in order to recruit graduates for entry-level careers, often in either management or technical fields.

   -- Firms sponsoring employee education--selected employees may be provided tuition and salary to participate in university degree programs. Again, such arrangements tend to be directed mostly toward managerial and technical studies; in some cases, benefits apply to the liberal arts and sciences as well.

   -- Colleges and universities providing special courses--even within this category there is wide diversity. Schools may offer anything from brief, non-credit courses providing updated information on specific technical matters to complete programs tailored to the needs of a specific firm. Courses may be

based on faculty research interests; they may also be taught by professionals from outside the university, hardly involving the school's faculty members at all. Courses and programs are often held on campuses, sometimes brought to the firms themselves, and occasionally held at a third, specially-designated location.

-- Firms utilizing closed circuit, interactive courses--Stanford and MIT, among others, offer industries televised courses geared to the needs of technical staff. Often these involve a one-way video system with two-way audio connecting the instructor--located at the university studio--and the classroom at the firm.

3. Service. College and university faculty often provide industries with consulting services--though, for the most part, these are conducted on an individual basis rather than under the official auspices of the school. In some institutions, corporate liaison offices facilitate the transfer of knowledge from the institution's research programs to the firm.

We focus here on the second tie between colleges and universities and firms--education--commenting on a problem common to recruitment. Chief executives of firms often extol the virtues of a sound liberal arts and sciences undergraduate education. They maintain that such an

education is valuable for its own sake, as well as for developing the capability to deal with ideas and facts, and with changes in values, policies, and social conditions--in short, to help create business statesmen. Unfortunately, that message does not get conveyed with sufficient clarity from chief executives to the human resource managers (those previously called personnel managers) who play a direct role in recruiting graduates.

The result is that those who hire college and university graduates--particularly, but not exclusively in times of recession--look largely for skills that can be utilized without extensive further training. Bachelor degrees in such areas as engineering, chemistry, and accounting are thus apt to lead to jobs more readily than degrees with greater breadth. One of the side effects of this phenomenon is that a great many undergraduate degree-holders in engineering go directly on to jobs rather than to advanced study, thereby shrinking the supply of candidates for engineering professorships and, in an important sense, jeopardizing the education of future engineers. At the same time, the qualifications of the non-professional undergraduate are too often underestimated: liberal arts students, in particular, whose broad academic experience has often best encouraged the flexibility and breadth required

in a rapidly changing world of work, are not brought into firms in sufficient numbers.

A related footnote concerns the Master of Business Administration, still the most sought-after graduate degree for those wishing executive jobs. Over 600 institutions now offer MBAs, and the number of graduates has quadrupled in recent years. Demand, however, is beginning to slacken. Because there is a two-tier marketplace for MBAs, the graduates of undistinguished management schools are beginning to have difficulty in finding positions, at least those they consider commensurate with their education. The graduates of the handful of prestigious management schools are still well-placed. There is, however, a growing skepticism among employers about what those with MBAs actually bring to their jobs; these graduates are often perceived as being overzealous, characterized by a troublesome drive toward becoming "instant chief executives." Some criticize the MBA case-study style curriculum, claiming that the cases studied are inevitably superficial. Others also fear that when MBA instruction is heavily quantitative, as is increasingly the case, its focus fails to encompass the wider economic, social, psychological, and governmental problems with which executives must deal. Some companies prefer, rather than to hire these young graduates, to pursue our next-mentioned option--providing for their own employees' participation in

business school programs, sometimes leading to a degree. Firms often see this provision as an inducement to potential recruits as well as a way to ensure that their managers first comprehend the company's approaches before undertaking management studies. Meanwhile, the special courses and programs provided by colleges and universities are burgeoning.

The University of Maryland and others offer management courses not only in the United States, but abroad as well. The University of Pennsylvania, along with numerous comparable institutions, offers experienced executives extensive on-campus management programs as part of expanding life-long education activities. On the technical side, George Washington University is one of a number of academic suppliers of brief, non-credit courses for engineering professionals. Large research universities and local colleges alike are engaged in developing continuing education programs targeted toward professionals and sub-professionals.

We present the following recommendations both to colleges and universities and to firms:

- A longitudinal study, carried out in greater depth than has been previously done, is in order for management school and other professional curricula directed to corporate and entrepreneurial careers.

- More interchanges between colleges and universities and firms should be encouraged: business-people lecturing at colleges, participating in conferences, attending classes, meeting with students; professors studying, consulting, and otherwise contributing to the analysis of business; and students doing research on company operations, serving as trainees, or finding summer or part-time employment in firms; and other interactions potentially of great mutual benefit to both business and higher education.

- The cooperative education movement in America has been an important contributor to those aspects of higher education with an occupational cast. We join with colleagues from the Massachusetts Institute of Technology who, in their 1982 Report of the Centennial Study Committee entitled Lifelong Cooperative Education, advocate a "vision for the future," in which the engineer's worlds of work and study are intertwined: where cooperation between academic engineering faculties and industrial firms results in an "extended academic community," and where learning is a continuous activity spanning most of the engineer's professional life and inevitably connected to "doing." The M.I.T. report presents a detailed set of proposals for cooperative education. We suggest that this approach be extended to a variety of professional areas, including management, health, architecture, chemistry and other natural sciences, law, and economic forecasting.

- Colleges and universities should encourage comprehensive courses of study, rather than restrictive specialization. Curricular breadth and depth must be properly balanced; we emphasize, however, that the unique role of higher education must be, now more than ever, to provide the resources essential to broad intellectual development. Specialized job skills should, for the most part, be acquired and modified not so much through college and university training as through other, perhaps firm-supplied, sources, and should be developed as needed--both as people change jobs and as the jobs themselves are altered.

We believe that it is important to have more generalists in most economic activities in the years ahead. Even in callings such as medicine, the marketplace is making it harder in many urban centers for neurosugeons and similar specialists to restrict themselves to their particular expertise. At the same time, it is generally said that due to rapid technological change the half-life value of the education of an engineer is now, at most, ten years.

We wish to stress, however, not so much current marketplace tendencies as our belief that in field after field there will be future demands for that traditional American role, "the jack-of-all-trades" as modified by alterations in the economy and its technologies. The intricacies of a robot, for example, may require not so much

a variety of electricians and mechanics as a general practitioner to provide therapy for its maladies. We believe the processes that engender obsolescence of knowledge will accelerate in the years ahead. It is reasonable to expect that most occupations will be either superseded by other activities requiring new learning experiences, or so altered that continuous education and training will be necessary.

IMPROVED TRAINING WITHIN FIRMS

Chief executive officers, other top managers, and boards of directors often believe more formal training is going on in their own and other firms than is actually the case. We observe that most managers in positions of authority and leadership consider their firm's training efforts valuable, but have only vague ideas of the substance, duration, incidence, and cost involved. We also find that those in charge of the training function are isolated from other relevant management functions, such as corporate planning. These and other observations lead us to the following recommendations concerning the role of the trainer, and subsequent suggestions focusing on the employee and on the financing of training.

The Role of the Trainer

If we are to succeed in strengthening the training establishment within American industry, commerce, and services, the role of the trainer must be given far more credibility than it currently holds. Training must be explicitly considered part of top management, must be allied with new project development, and must typically be represented in the firm's long-term planning. In contributing to the planning process, the trainer must have a voice in discussions concerning, for example, plant location or future skill requirements. It is not feasible for trainers to prepare workers effectively if they themselves are not aware of the firm's future directions. In general, the training function should be closely aligned with the philosophy of management. Only if there is understanding and agreement as to its priorities and objectives can a firm's training strategies be properly assessed.

- The person in charge of training should be designated the firm's Director of Education (or some comparable title). Though we are tempted to suggest that this position be equal in stature to that of the head of Research and Development, we realize the improbability of such a development at this time, and propose instead that it be given status comparable to

that of the Director of Public Affairs. This post should be of such character that it is deemed satisfactory as a terminal position or as a direct path to a terminal position; its responsibilities should be strategic as well as tactical.

- The trainer's role must expand outward into the community as well. The training manager should be aware of the educational and training resources nearby. He or she must be able to develop creative liaisons with colleges, universities, technical and proprietary schools, trade associations, and appropriate public agencies to supplement the firm's training efforts.

- In order for a trainer to assume such standing and effectively fulfill these roles, it is essential that the training of trainers themselves be assuredly rigorous. We applaud the efforts of the American Society for Training and Development and other groups in setting forth professional agenda for trainers. We emphasize, however, that it would be unfortunate if entry standards for the field of training were to become rigid. The wide range of educational backgrounds and experience currently displayed among trainers holds some advantages. The training background should, in fact, be widened, particularly to include increased technical proficiency. Not only must trainers be solidly acquainted with current technology,

they must also be capable of adapting to the new. We do not recommend that trainer-education put great emphasis on the details of educational methodology, as do many current teacher-education programs.

- The conferences that were part of our study brought together training directors from various large firms in a unique interaction. These indicated to us that a general need exists for small ongoing forums (or similar mechanisms) that would facilitate exchanges of ideas and information among such directors.

The Employee

Employees should perceive training as a tool. Our studies reveal that employees believe they have a "right to grow" and that training is a prelude to advancement. Where the training is complex and productivity is significantly enhanced, employees should be rewarded with more pay or status, lest they carry their new skills to a competitor or become disgruntled. Where the training provides for basic competency, it should be valued for itself. When training is pervasive within many companies, as it is in Japan, it is not difficult to separate the concept of training from that of automatic advancement.

- Entry-level training is of a special character. It often will determine the whole career pattern of the new worker. Employees may, by agreement, temporarily receive lower wages during training to be followed by higher wages after completion of the training period. We particularly encourage firms, at least with selected entry-level trainees, to provide the broader kinds of experience we note below.

- As we have discussed, there is a tendency for firm-supplied training to be job-specific, partly due to firms' awareness that more generic training is easily applicable to jobs with competitors. We suggest that this tendency may be self-defeating--overly specialized and job-specific training may hamper employees' job-loyalty; more generic training, on the other hand, may be one of a firm's most valuable means of encouraging enduring work force relationships.

- Training programs should at least serve to give workers a clear sense of their purpose within the firm. Rather than being overly-specialized and narrowly task-specific, training should help develop in employees a broader awareness of the value of their individual tasks in the overall effort of the firm.

Financing Training

Training programs need to be evaluated for cost-effectiveness within the firm. As we have indicated, it is

especially difficult to measure cost-effectiveness when there are multiple objectives.

- In attempting to measure cost-effectiveness, one must determine the time frame to be used, and consider the ultimate cost of providing no training at all. Training is not simply a current expense.

- Firms should develop an information base to compare the costs and benefits of training with other functions within and among firms. We have found that few firms know the cost of their training, and even fewer allocate to training the costs of space, management and other overhead expenditures, or foregone output during training periods. The cost of training should be compared to alternative investments in physical plant, to job redesign, and similar aims.

- Training should receive regularized budgetary support. Evidence shows that firm-supplied training programs are cut during recessions and expanded during times of profitability (the opposite being true for governmental training programs). We believe such cyclical practices by firms should be avoided whenever possible.

UNIONS AND TRAINING

The unions of communications workers, machinists, and aerospace workers, among others, are each recognized as promoters of training. Beginning in 1982, the United Auto Workers (UAW) entered into agreements with General Motors and Ford for retraining unemployed and hourly workers. The General Motors program was initially conducted in conjunction with the State of California, and was financed by a five-cents-per-hour company contribution under the contract with the union (to increase substantially under the terms of the 1984 contracts). These and similar programs are most worthwhile.

However, unions, recently buffeted as they have been, often take modest stands in support of training. Writing in Education and Urban Society (1982), Nevzer Stacey and Ivan Charner make a convincing case for why unions should be stronger advocates of training.

Of particular concern to some unions has been the apprenticeship, a formal means of learning skilled trades within work situations that has had a long history of developing the capabilities of the work force. Registered apprenticeship programs for 700 to 800 occupations are currently provided for over 300,000 workers, many of them in the building trades. The Bureau of Apprenticeship and Training of the U.S. Department of Labor's Employment and

Training Administration sets standards for job duties, minimum classroom-type instruction, wages, equal opportunity practices, and safety conditions, and issues certificates for successful program completion.

Apprenticeships differ from informal on-the-job training: they are based on contracts involving the reciprocal responsibility and expectations of the learner (usually a young worker) and the sponsor (usually the union, the employer, or a joint committee, sometimes with the addition of public representatives), and operate through a staged transmission of skills from the experienced workers to the inexperienced. Apprenticeships range from one to six years, usually lasting four. The inexperienced worker receives a wage and training in inverse proportions, with an eventual increase of the former and with the initial wage usually half of the anticipated end-wage. The apprentice worker agrees to remain in the program and perform faithfully; the sponsor agrees to make every effort to keep the apprentice employed and to see that the transmission of skills and other conditions agreed to in the contract are satisfied. Usually programs are designed so that there is no more than one apprentice to three skilled workers.

There are frictions in the apprenticeship system that have been noted by writers as early as Adam Smith. The skilled worker (and the union protecting him) is in no hurry

to increase the supply of potential competitive skilled workers. The apprentice is, however, anxious to learn the trade and to earn the pay of the skilled worker. The numbers of apprenticeship entrants are restricted, and skilled workers may hold back on what they impart to apprentices. Employers, meanwhile, may not have sufficient numbers of jobs available for graduate apprentices. Moreover, the registered apprenticeship occupations are regarded by many as being outdated in terms of the current and future job market, and women and minorities have not been made to feel welcome in trades that historically have been the domain of white males. Nevertheless, graduates of apprenticeship programs are more likely to become supervisors, are more skilled, more productive, and have better safety records than those trained by informal means.

- We urge that firms and unions jointly and frankly address the frictions of apprenticeship programs, since a continued flow of trained, skilled workers is to their mutual benefit. Among the subjects for mutual deliberation and agreement should be ways of

  -- rewarding the supervisory skilled workers;

  -- reducing the anxiety of skilled workers;

-- orienting supervisory skilled-workers so that they can more readily train women and minorities;

-- speeding or improving the training period to minimize disgruntlement and the number of drop-outs.

The Federal Bureau of Apprenticeship and Training provides assistance to any employer in designing a certified apprenticeship program. The Bureau's services can be useful to both unions and employers, and, in some cases, can reduce the friction surrounding apprenticeship issues.

- We also urge both employers and unions to consider other options within the range of training programs, and to determine how to encourage training for multiple skills. Although unions have traditionally favored protecting specific jobs, it may now be in their interest to favor rotation of jobs--as practiced fairly widely in Japan--for a more flexible, highly skilled, and satisfied work force.

- Unions recently have supported employer tuition assistance; they should also strongly urge their membership to take advantage of tuition assistance when it is provided. Reports indicate that only about 5 percent of those eligible for tuition assistance in any one year

actually use this benefit. Paul Barton of The National Institute for Work and Learning suggests that trained union "learning organizers" could help workers locate and negotiate for learning opportunities throughout their working lives.

- In addition, unions and employers should explore the effects of achieving credentials on the career paths of the workers who, through much personal effort, have studied part-time, taking courses outside the workplace. Evidence indicates that employers do not reward the part-time earned degree or credential as highly as those earned full-time. For example, the entrant with an associate degree from a community college is typically better-rewarded in terms of responsibility and pay than is the individual who earns the same kind of credential part-time, while working.

- Ivan Charner, in his report to the AFL-CIO, advocates building a system of linkages between organized labor (and industry) and institutions of higher education. We agree that all efforts should be made to develop such a system.

TRAINING FOR AND BY SMALL BUSINESS

Over twenty million jobs have been created by small businesses in the last fifteen years. Some expect that 80 percent of the new jobs introduced by 1990 will come from

small business. Yet small businesses are notably lacking in formal training programs. David Neumark, in a 1984 analysis of firm size and training, found that there was a positive relationship between firm size and the provision of training. He conjectures that as the number of employees increases, firms find that more formal personnel practices and training are useful means of evaluating, monitoring, and compensating workers. Moreover, the costs of training programs decrease as they include more employees.

We suggest a few explanations for the current lack of formal training in small businesses: their owners and managers often sacrifice present compensation for potential future gains and for the satisfactions of being "their own bosses"; these firms have low capitalization; and they are likely to attract employees who tend to be off-beat, self-starters, and who require less formal training than those who dislike risk-taking. At least at the beginning stages of an enterprise, everyone involved feels too pressed and harried to take time for training.

Entrepreneurship is part of the American ethos--it has been a hallmark of this country since its founding. Small firms are often more responsive than large ones to innovation, inventiveness, and modest scale differentiated markets. In some small firms, timely ideas reach fruition; these firms then grow rapidly. Recently established

technological firms such as Digital Equipment Company and Apple are good examples of this phenomenom. Yet most young Americans today know little about starting businesses. And, despite the success stories, the failure rate of small businesses is, on the whole, high.

The potential opportunities offered to employees by small firms should be recognized. Individuals are apt to take more pride in their work when they have a hand in production decisions and a stake in the outcome. This, incidentially, is why management/labor "quality circles" have worked well in large manufacturing industries that had previously been criticized for a lack of attention to detail and workmanship. The employee often plays a wider role in a well-run small business than in a large firm; the former offers greater opportunity for expanded responsibility, overall comprehension of the firm's activities, and closer working relationships with management.

Local development centers, with financing from the Small Business Administration, now offer professional and technical assistance to budding entrepreneurs. Additional assistance, though, is still needed.

- We propose the organization of volunteers to assist, on a one-to-one basis, those wanting to establish their own small businesses and in need of relevant entrepreneurial skills. Volunteers

could be of varying backgrounds: retired businessmen, those who have successfully built small businesses themselves, lawyers, accountants, or engineers. (The National Executive Service Corps performs such a function for larger businesses overseas.)

- We also urge that associations of large firms expand their training courses for application to small businesses in like enterprises. As the few current examples of these joint efforts have shown, training costs can be distributed and expertise shared.

- In France, displaced workers have been given payments with which they can begin small businesses of their own. We believe this idea has sufficient merit to be studied. If offered experimentally in the United States, this type of assistance should be tied to a training program.

TRAINING BANK

The idea of individual access to training has recently received wide-ranging discussion. Access to training has come under various rubrics: for instance, the individual training account, training vouchers, and training benefits. We add another rubric--the "training bank"--in order to differentiate our proposal, not to claim originality, although some of its features are unique. All of these

training access proposals stem from the premise that if the worker is brought into the decisionmaking process, and is not simply a passive recipient, he or she will be more highly motivated to profit from training. However, the proposals also presume a basic level of knowledge and understanding from which workers can make wise decisions regarding their future work lives.

- We propose the establishment of a "training bank" that would provide workers the opportunity of two years of training, beyond the present level of twelve years of public schooling, if they have had five years of work experience and are prepared to pay part of the cost. Workers would be eligible for training in the private- or public-sectors, at colleges or universities, at proprietary schools, or through employer-sponsored training programs. This training, if used in the program of an employer, would be funded mostly by the firm. The training allocations could be "spent" by individuals, once they have met the work-experience criterion, at any age up to retirement, and could be used in segments. A person could, for instance, use one year's worth of his or her allotment immediately, saving the second year of training for later life, or could use the allotment in smaller segments of any duration (e.g., two to six weeks) that would be of greater perceived value.

- This system can potentially heighten individual workers' sense of responsibility for their own career development, by giving them freedom to pursue their chosen training options and, just as important, a partial role in that training's funding.

- The training bank system would require safeguards against potential abuse. For example, an employer might coerce employees into using their allotments on training supplied by the employing firm. (This is one reason that we propose employers heavily match employee and public contributions.) Other potential abuses or misuses might arise if proprietary schools or other groups misrepresent their offerings. The experience of the G.I. Bill could provide insights in developing safeguards.

- There are limitations to the efficacy of the system. Without provisions for income maintenance during periods of full-time training, very few workers would be able to afford foregone wages. We assume that the training bank would encourage some people to prepare by saving for living expenses during intensive training periods. Those who are employed, and then become involuntarily unemployed, would receive unemployment insurance benefits. Some might need loans--or other assistance--to tide them through the training period (see Loan Funds, pp. 57-58).

- A cap on training cost would have to be determined.

- Funding methods would also have to be determined. Some have been suggested in related proposals:

  -- Unions have proposed that employees who lose their jobs because of plant closings or layoffs be entitled to retraining funds paid for either by the employer (some union contracts call for this) or by the federal government. The major difficulty with such an arrangement is that only one type of worker is covered--those displaced during times of employment disruption.

  -- Pat Choate of TRW proposed an Individual Training Account, to be established for each worker and paid for through payroll deductions matched by the employer. It would accumulate over a certain period (Choate specified six years) as a finite amount to be drawn upon if the worker were displaced. If there were no need for the funds, the worker's share would go to him or her on retirement (or to the estate upon death) and the firm's share would return to the firm. The American Council on Education through the Business-Higher Education Forum endorsed this proposal, and legislation along those lines was introduced in Congress. A drawback of the concept as it now stands is that the training is considered as

an emergency measure and applies exclusively to steadily employed persons who have sudden need of training.

-- A percentage tax (one percent in the current system in Great Britain) on gross earnings could be kept in a national training fund. This would be similar to a fund supported by general tax revenues. A variant, an employer-government training fund, could be drawn both from general tax revenues and a special tax on business, in the belief that various segments of the nation, including businesses themselves, would benefit. The arguments raised about tax-supported redistribution measures would, however, need to be considered before the adoption of either variant.

- Our proposed training bank would provide more flexibility than some of the other proposals, but would be costly. Considering that there are about one hundred million people in the work force (with an average working-life of 40 to 45 years), if one projects possible training costs at $5,000-$7,000 (possibly modest estimates) for each two-years of training and assumes that two-out-of-three workers would take advantage of their training opportunities, the cost of the bank would be at least $5 billion per year. It should be noted, however, that the cost of CETA--a federal program directed primarily toward the disadvantaged--was, at its peak, more

than double the projected total cost of the training bank, which is to be directed toward the entire work force and would require only half or less of its support from federal funds. As another comparison of scale, the estimated federal training outlays in 1984 totalled $5.66 billion. (The Department of Labor administered the bulk of the funds--53.75 percent, of which $2,654.6 million was under the Job Training Partnership Act allocation [see The States and their Localities pp. 68-73]; an additional $273 million was shared with the Department of Health and Human Services for the Work Incentive Program. The Veterans Administration, in its G.I. Bill-type programs, was allocated $1,526 million, and the Department of Education was allotted $790 million for its vocational education program.)

We suggest that the cost of a training bank is not excessive when one considers the amount of current and past expenditures (the peak of federal training expenditures having been an estimated 14 billion in 1979), as well as the desirable proportions of the training task in the years ahead. Furthermore, we emphasize again that the training would receive less than half its funds from the federal government and the remainder from employees, employers, and, to some small extent, from state and local government. Thus, the federal commitment would be about $2.5 billion, based on our current cost estimates (and only about $5 million even if our estimates of training cost were doubled).

- In making this proposal, we are conscious of the needs of the disadvantaged and entry-level workers for whom additional initiatives are surely required. We are also mindful of the importance of cost containment efforts to help balance the federal budget.

- We advocate that government contributions to training allotments be untaxed. While responding to workers' perceptions of their own needs, the training bank would also benefit the entire national economy.

- We propose that a joint public-private effort to explore the costs and benefits of the training bank be carried out. If our belief in the bank's feasibility is confirmed, we further suggest that pilot demonstrations be undertaken before a national program is attempted. Too often, national ventures are begun without adequate testing.

Loan Funds

According to our proposal for a training bank, an opportunity for training would be available to almost everyone who has had five years of work experience (military experience included), and would be used at the worker's discretion. People, then, would surely differ in their ways of utilizing this opportunity. For example, some might want to wait to take their training, anticipating a more severe

need for it ahead. Others might take it early in their careers. Through less than perfect judgment or guidance, there might also be those who would "squander" their opportunity. Others would need funds for living expenses while being trained.

- In order to supplement the training bank system, and provide increased financial flexibility for training, we recommend the establishment of loan funds, to be administered as have been loan funds for higher education. These loans would be provided to those who want more than two years of training, or who require funds for living expenses, and could be repaid by either the worker or his or her family through future earnings. It would be administered through private banks and thrift institutions, but would be federally guaranteed. Repayment arrangements might include payroll deduction and income tax withholding options.

- Education loan funds have been successful, have cost the government relatively little, and have broadened educational options for many. In developing a similar fund for training, the experience of the education loan system in setting eligibility requirements, establishing controls, developing repayment systems, and sorting out administrative details provides a useful model.

TAX INCENTIVE POLICY AND TRAINING

If a more highly trained work force is to the national advantage, corporate tax incentives for training are, presumably, a simple means of encouraging that goal. They involve no elaborate governmental bureaucracy to initiate, participate in, regulate, prod or oversee programs; they are directly carried out by the firms or individuals motivated to undertake the training. Furthermore, tax incentives allow little "leakage," and the regular auditing of the tax system helps prevent dishonesty among claimants. However, in a discussion of incentives, the complexities of corporate taxation and its ramifications cannot be ignored.

In the early 1960s, corporations paid about 45 percent of their income to the federal government. Although the statutory rate is still 46 percent, the average corporate tax rate on domestic income is only 27 percent, and many profitable companies pay no income tax. Overall corporate tax payments have dropped over the past three decades from 25 to 8.5 percent. There are those who feel that companies should be obliged to pay their "equal share" of taxes, and view this recent trend as essentially unjust. There are others, ourselves included, who emphasize that in a healthy market increased corporate taxation just increases consumer costs, not corporate responsibility. Still, the belief that corporations should indeed pay a significant share of taxes

led President Reagan in his tax reform proposals to require a minimum level of corporate taxation.

Incidentally, service and trade businesses constitute a major segment of the relatively higher tax-paying establishments (in 1982, this group accounted for 37.1 percent of all corporate taxes). These tend to be small-scale enterprises, often retail shops, which suffer the disinclination toward training mentioned earlier (see Training for and by Small Business).

We also recognize that tax credits for hiring the difficult-to-employ have proven less attractive to manufacturing companies than credits for rapid depreciation of plant and equipment or for research and development, if only because that kind of training necessitates a major supervisory commitment.

Despite these barriers to the success of a tax incentive system, however, we recommend that tax incentives for training remain a vital option--one that might be linked with our proposed training bank. In fact, we are tempted to suggest that perhaps the 25-percent tax credit for research and development, for which high-tech firms lobbied in 1981, and which has in itself been valuable, be supplemented by a similar tax credit for training, again, in conjunction with a training bank. In an increasingly competitive world

economy, the potential gains in quality and productivity could be significant.

Tax credits reduce taxes after profitability has been estimated. Though these credits may, under many circumstances, be most advantageous to firms, some may find equal benefit in initially deducting their training programs as part of the "cost of doing business." This, of course, would only be possible in firms where training was considered a regular expense.

Current tax reformers ought to recognize the merit of tax credits for investment in human capital. If indeed a slowdown occurs in the depreciation rate of new plants and equipment, one of the unintended results may be the increased appeal of training programs. Investment in human capital may be stepped up as investment in physical capital and equipment slows down. Whether this would represent a sound economic strategy for international competitiveness is a question deserving considerable attention in its own right--not merely in the context of tax policy reform.

- We favor a review of tax credits and incentives for investment in equipment and plant and research and development, together with those for investment in human capital, as part of economic policy--not just tax policy. The interrelationships are so complex that such a review is necessary to ensure that economic

investment and development not be skewed as an unanticipated result of tax action. Even if increased investment in training (which we strongly recommend) were to occur due to a slowdown in depreciation of fixed capital, we prefer that such an outcome be the result of a deliberate choice rather than an unintended consequence of policy.

- We are pleased that the efforts of educational interest groups, including the American Society for Training and Development, resulted in reinstating Section 127 of the Internal Revenue Code. This provision allows employer-provided tuition assistance--including up to $5,000 for graduate/professional studies--to be tax free, even when used for education not directly applicable to current jobs. As long as employers are satisfied with their employees' courses of study and progress made, we support this concept, and regard the IRS ruling (since rescinded) that these tuition benefits be taxed as having been a misguided and counter-productive measure. Presumably there will be increased earning power generated by the new skills and the IRS will recapture foregone revenue at a later date.

- Under the current tax code, Section 401K allows for the deferment of taxes on specified amounts of savings for individual retirement. Differing from Individual Retirement Accounts (IRAs), these savings may comprise both employer and employee contributions and may be more flexibly

funded. We recommend consideration of the extension of this provision to apply to savings for training. It would be necessary, in examining this extension, to determine whether or not the President's proposed modifications of Section 401K would seriously reduce the advantages of such an option to help fund training.

- We urge further that people learning new skills for new jobs be allowed to deduct expenses, within guidelines, against their tax. Presently these can be deducted only for maintaining skills for a current job. They should also be allowed a carry-forward deduction, since some undergoing the training will be reduced to little or no income during the training period. A dollar and/or time cap could prevent abuse of this allowance by the perpetual student. Again, presumably there will be increased earning power generated by the new skills. Also, it is our view, often reiterated in this report, that individuals in a changing economy will have to retrain frequently in the future. They should be encouraged, not penalized, if they do so independently of an employer-based plan.

- The present federal individual tax deduction system allows workers to deduct expenses for moving fifty miles or further to new jobs. However, many such moves are made during years in which personal income has dropped. To make the deduction more meaningful for displaced workers, it should be carried forward for a

limited period (one, two, or three years) so that when higher incomes are achieved, the costs of relocating can be deducted. This policy should be linked to those for training-related relocation, as well as other relevant policies, in tax reform measures.

TRAINING ASPECTS OF UNEMPLOYMENT INSURANCE AND WORK-SHARING

Unemployment Insurance

Although unemployment insurance (UI) is, for the most part, outside the scope of this report, the manner in which it is administered relates to the provision of and response to training programs. Many have proposed reforms of the insurance system; a thoughtful set of suggestions is contained in "Strategy for U.S. Industrial Competitiveness" (1984) by the Research and Policy Committee of the Committee for Economic Development (CED).

Many reforms are aimed either at achieving efficiency in the system that would ease the financial burden it now places on the public purse (a waiting period of several weeks before a worker is eligible for benefits has been suggested as a means of eliminating the most temporary unemployment cost) or at increasing equity (a long-term worker, for instance, should receive more assistance than one who repeatedly turns to the system for income-maintenance after working intermittently for the minimum duration required for coverage). Other reforms are aimed at

encouraging firms to maintain stable work forces, rather than expanding and contracting, and at encouraging workers to return to paid positions as rapidly as possible.

The CED recommends that unemployed workers be required to attend job-search seminars during the mandatory waiting period for benefits. Job-search seminars are thought to spur the unemployed person into action--to reappraise his or her skills and learn to present them in a convincing manner, and to gain heightened awareness of how and where to turn to locate a new job. The burden is on the person displaced; we believe, therefore, that these people should have available excellent job information and job guidance.

- A consensus is growing in favor of linking unemployment benefits to training programs. Unemployed workers receiving unemployment benefits have, in the past, been discouraged from attending retraining programs because the states approved so few. However, the trend is toward fuller use of training programs, and the federal government has mandated that displaced workers be allowed UI benefits if enrolled in training programs under the Job Training Partnership Act. Some states have taken independent steps. For example, California's extensive Employment Training Panel (ETP) programs are targeted primarily toward needs of displaced workers. In the ETP programs, training is approved only when an employer has agreed in

advance to hire the successful trainee, and trainers and consultants do not receive payment until the trainee has worked for 90 days (see The States and their Localities, pp. 71-72).

Work-sharing

Concerned as we are with scarce public resources for unemployment insurance, we note that strategies to ease the burdens of the jobless include schemes for work-spreading, either to reduce the work week for each employee or to shorten the work year. Work-sharing would allow more people to remain employed, though take-home pay would decrease for each. Temporary work-sharing, in times of economic hardship, would require the agreement of both employees and employers, for reasons of fairness. We deal with this policy area only because it is receiving much attention in countries such as the Federal Republic of Germany, and, should our nation enter another severe recession, would surely have many advocates here as well.

- Though we share with many others some uneasiness about work-sharing schemes, we believe they merit exploring, not only for equity, but because of the implications for training. Work skills and positive work attitudes are more highly maintained in a larger working population than when work is distributed more narrowly.

Professor Robert U. Ayres of Carnegie-Mellon University advocates requiring job-sharing in times of economic recession in industrial sectors deemed distressed by the Secretary of Labor. If the official work week were to be decreased when firms operated at less than 70-percent capacity, then management would have the incentive to spread work among more workers to avoid overtime. (He suggests, for example, a 32-hour standard work week if the industry is working at 50-55 percent capacity.) For equity, he suggests lengthening the work week, for example, to up to 42 hours at 80 percent capacity, and 44 hours at 85 percent capacity.

We believe that work-sharing should not be forced on a formula basis, but that ideas such as Ayres' be explored by industrial groups and unions, and that some experimentation with work-sharing be done. Many workers may respond well to a reduced work week or work year, even with reduced income, both to gain more family or personal time and to enable co-workers to remain employed. Furthermore, enterprises that have had histories of preferring full-time workers to part-time workers are already altering their perceptions. Many service industries, such as hospitals, banks, and retail trades, are achieving cost-savings by employing part-time workers whose hours increase or decrease according to demand.

- The quality of the work force, however, will not be improved, nor even maintained, if benefits, including training benefits, are sacrificed through work-sharing. Such a consequence would be the antithesis of what we advocate: the creation of a more skilled work force.

THE STATES AND THEIR LOCALITIES

When authorization for the Comprehensive Employment and Training Act (CETA) was denied by Congress in 1982, the Job Training Partnership Act emerged as its successor. If CETA, in the nine years since its adoption in 1973, had fallen into general disrepute, JTPA was welcomed with the relief that often accompanies a significant spring cleaning.

CETA, in retrospect, is now described by some as having been more successful than its lingering reputation would imply. Its history was muddled by a decade of economic difficulties, and by the bureaucratic tangle by which it became increasingly well-known. Despite its shortcomings, they say, it was not a failure. Nevertheless, many of CETA's most publicized mistakes have been avoided in the planning and implementation of the JTPA.

The JTPA's adoption was swept along amid a growing penchant for decentralization. The Act was a natural outgrowth of President Reagan's 1981 training agenda aimed

at intensifying efforts to reduce fraud, increase the involvement of the private-sector, and heighten control over funding decisions, as well as to abolish a portion of other programs, including the Young Adult Conservation Corps (President's Employment and Training Report, 1981). Containing provisions for the disadvantaged (Title 2), and to a lesser extent, the dislocated (Title 3), as well as for a limited number of federally administered and Veterans programs, (Title 4), the five-part Act was designed to be both less expensive and less centralized than CETA, and to allow states maximum latitude in its interpretation. Governors' offices would now hold responsibility for the distribution of their states' block grants; grants would be allotted by formula and administered by the Employment and Training Administration of the Department of Labor. States would be required to match their federal allotments from non-federal sources and to pass on the major portion of funds to their Service Delivery Areas (SDAs)--local divisions identified by the Governor and based on existing government boundaries.

Once it had specified broad areas where funds were to be targeted, the federal government would allow states substantial leeway in developing appropriate programs. State Job Coordinating Councils, comprising government, business, and educational leaders, were charged with

overseeing the delivery of state funds and their use by the SDAs. Private Industry Councils (PICs), with members drawn from local business, labor, and community groups, were to serve as the governing mechanisms within their respective SDAs. The Councils would review local training proposals, and, based on their understanding of their communities' needs, select both proposals to be pursued and subsequent participants.

Although the Department of Labor retained the right of final program review, the law stressed that the PICs would carry the responsibility of establishing evaluation guidelines. Essentially, PIC "performance standards" for local programs were to be based on cost-benefit analyses. Specifically, the JTPA stipulates that return on investment be measured by "the increased employment and earnings of participants and the reductions in basic welfare dependency." The system was designed to allow the states to track training dollars directly to participants, thus permitting relatively strict control of funds.

Now, three years after JTPA's adoption (note that the first year was spent primarily in shifting gears), the states have developed diverse systems and programs for training under the auspices of the Act. Through our recent interviews of officials and JTPA administrators from ten states, we learned first-hand of some of these current programs, for example:

- Indiana's Title 3 effort initially comprised three pilot projects, each testing a different approach to the development of training programs. The first, in Fayette County, attempted a community-designed program; the second, in Madison County, established a voucher system; the third built a training program for displaced steel workers upon smaller initiatives already in place. Other projects have since been implemented, including one in conjunction with the UAW.

- South Carolina's Title 2a programs include training at technical centers; on-the-job-training with private employers; individual, one-to-one training (in collaboration with community-based organizations); direct job placement of criminal offenders; and school youth pre-employment training. South Carolina also sponsors a Title 2b Summer Youth Program to provide those still attending school with remedial training and exposure to entrepreneurial activity.

Though many state training programs are now subsumed under the Job Training Partnership Act, some states are also engaged in innovative programs not entirely under JTPA auspices. A few noteworthy examples are:

- California's Employment Training Panel. Mentioned earlier, the ETP views itself as a retraining and economic development council.

Its extensive training program, financed by unemployment insurance, focuses exclusively on experienced workers who are unemployed or soon-to-be-displaced. The ETP contracts with California businesses of all sizes to hire and provide retraining for eligible candidates. Delaware (under its Blue Collar Jobs Act), as well as New York and others, have been following California's example to develop similar programs for dislocated workers.

- Massachusetts' Bay State Skills Corporation, funded by matching state and private-sector grants, is governed by a board representing the business, education, labor, and training sectors. The BSSC has, since 1981, been bringing schools and businesses together in the design of training projects to aid areas with labor-market shortages. Between 1983 and 1984 alone, the BSSC trained over 2,400 people in 89 skills-training programs. At the same time, it provided 39 career-guidance programs for over 4,900 people, some of whom were also BSSC trainees. Massachusetts' success has led to the adoption of similar programs in states such as Minnesota, Washington, and Kentucky.

Assessments of JTPA are necessarily inconclusive at this early date, but its impact seems positive. Spokespeople repeatedly laud JTPA's flexibility, high performance standards and placement rates, and a relative lack of

red-tape, as well as its successful encouragement of the private-sector's increased involvement in training and trust in this government program.

Of course, JTPA is also subject to adverse criticism from those who still value CETA's objectives. JTPA represents a significant funding cut, when compared to CETA. Furthermore, JTPA provides no stipends for trainees as CETA commonly did; this inevitably prevents the structurally disadvantaged--those who cannot afford to be without income while undergoing training--from participating in JTPA programs. That limitation, as well as new trainee qualification requirements, have been accused of "creaming" the pool of potential participants, admitting to JTPA programs only the most advantaged segment of the population in need of training. The JTPA's high performance standards and placement rates themselves are questioned--are they, in large part, a result of this "creaming?"

Another complaint sometimes heard about the JTPA concerns its short-term orientation. Though its emphasis on expediency and tangible, "real-world" results has been one of the JTPA's proud claims, some cite its less favorable implications. Long-term training--a CETA hallmark and a casualty of its demise--is, they say, badly needed in certain cases, its current unavailability reflecting a considerable flaw in the JTPA system.

Shifting to general issues surrounding the role of states and their localities, we offer several proposals:

- Approving as we are of the delegation of training responsibilities to the states, we also recognize that few problems remain within state borders. More and more firms, as they have become national or international, increasingly cut across state boundaries for many of their functions. In addition, many of the larger metropolitan areas of the U.S.--in which most jobs, including those in small-to-medium-sized firms, are located--also cut across two or more states. For these reasons, and for economies of scale, we recommend that states engage in cooperative training efforts. Such interstate cooperation is rare and needs to be stimulated by associations of state governments.

- Most of our proposals deal with urban firms in industry, commerce, and service. We observe that only about 2.5 percent of the work force is employed directly in agriculture. Yet agriculture, its problems notwithstanding, has been one of America's greatest economic achievements. Technological and managerial accomplishments in capital-intensive farms are unsurpassed in the world and rival any other economic activity in the country. Farmers look to their state agencies, and to state and county board operations supported by the federal government, for many kinds of technical and marketing help.

Meanwhile, the graduates of our state agricultural facilities choose jobs in urban agribusinesses rather than on the farms. We must not forget training for farm labor and management, but rather ensure that farming remains one of the most productive sectors of our economy. The role of the states in supporting agriculture and its work force is vital, and the training component of that support requires both maintenance and enhancement.

- Federal law prevents using unemployment insurance (UI) monies for training. California reduced the take for UI by one-tenth of one percent, employing these funds for its Employment Training Panel Program. Delaware is following suit. We suggest that other states carefully examine this option. (See Unemployment Insurance, pp. 65-66.)

- State and local employment is not one of our particular concerns. Yet we note that it is providing increasing numbers of entry-level job experiences for minorities, women, and low-income persons. Unfortunately, those with such entry-level experiences rarely manage to transfer to private firms. We recommend that, in partnership with private firms and with localities, the states, through their employment services, work to overcome those barriers.

- Our interviews suggest that those now charged with carrying out state training responsibilities are finding that previously existing tensions between federal government and the states have now been replaced by tensions between the states and the localities. We believe that the shift away from the federal government and toward greater state responsibility is advantageous for many reasons, including reduction of problems arising from geographic remoteness. Certainly, business executives seem pleased that responsible officials are now located nearby. We also realize that certain tensions can help spur deliberations and subsequent agreements. In order to minimize frictions and help smooth the operations of the new partnerships, we propose that states, particularly larger ones, each designate an official to serve as an ombudsman for training.

A very significant feature of the JTPA is that without entirely neglecting the needs of the disadvantaged, it begins (and we stress it is only a beginning) to recognize that it is important, for the nation's general economic and social well-being, to refit our entire work force. We have concluded that virtually the entire U.S. work force is vulnerable in a world economy in which our national position is more precarious than it has been at any other time within this century. Thus, we have focused our recommendations on

the work population at large, and on basic education, in addition to policies more narrowly directed to training. Our sense of the interconnectedness of all of these issues, as well as of the essential importance of training, lead us next to our concluding proposal.

INTER-AGENCY CENTER FOR TRAINING COORDINATION

Our belief in the importance of training for the nation's economic future has found growing corroboration on the parts of business groups, state and local governments, unions, economic analysts, and civic leaders. The training provided by industry and commerce is substantial, but not as extensive--or intensive--as they and others, ourselves included, have believed. Also, the public has been negligent in demanding adequate basic education--the grounding necessary for the preparation of the work force. Within the realm of job-training, the federal government, for twenty years after the passage of the Manpower Development and Training Act in 1962, concentrated on disadvantaged and dislocated groups, somehow believing there were few problems for others. We believe differently, and argue that the full American work force requires a continuous training effort to adapt to new technologies and to world competition. That imperative has to be supplemented by an obligation to offer

special programs to economically disenfranchised fellow citizens.

The interest of the federal government in training policy is clear in the following contexts: national defense requires an educated and trained work force and an efficient, technologically advanced setting; the nation must adapt to competition within an international arena that has altered, and will continue to alter, the very structure of the American economy; the changed character and organization of work requires preparation far more systematic than informal on-the-job training; the entire population should have equitable access to opportunities for education, training, and work; income maintenance programs should, as rapidly and effectively as possible, be transferred from the dole to employment, frequently with the help of training--privately supplied whenever possible but, when necessary, publicly assisted. We believe that the federal government should reinforce training resources, and that its doing so would aid economic growth and development. (We view the federal government, however, more as leader and moderator than financer.) Increases in training, we expect, would also reduce the need for federal support for income maintenance.

The federal government has rightly delegated most responsibility for training programs to the states. Only as

a last resort should it manage or administer large public programs for training. The federal government is, however, uniquely capable of coordinating, stimulating, analyzing, providing an information base, and considering alternative policies for training and retraining for a productive economy and a sound society. In fact, the states can only succeed as primary deliverers of training if the federal government recognizes and implements its coordinating role.

- The President should establish, with the agreement of Congress, an inter-agency Center for training coordination, comprising senior talents from the Departments of Education, Commerce, Agriculture, Health and Human Services, and Labor as well as others, including the Veterans Administration, the Office of Science and Technology, the National Commission for Employment Policy, and the Office of Technology Assessment.

  -- This Center would have on its board, in addition to senior federal officials, a few state and local officials as well as several corporate and union leaders, plus selected educational and community leaders. The Secretary of Labor should be the chair, and the Secretary of Education, the vice-chair. Advisory boards should serve as review panels for special studies or assignments and thus augment the formal board.

Preserving its high status through a small but excellent staff would help ensure its being an effective organization.

-- The Center would be expected to assess regularly the importance of training to productivity, to defense needs, to equitable use of the talents of our citizens, and to the changing requirements of American industries and services in the world economy.

-- Other agencies now in place perform or contract substantial research on employment and training-related topics, but there is little coordination of these efforts. The Center should, through a small budgetary allotment, stimulate serious studies to evaluate the impact of training under varying circumstances. It is important to know, for instance, under what circumstances training "takes"--how much difference training makes to productivity in the firm and to the career of the recipient. In the days of the Manpower Development Training Act, evaluations suggested that training immediately increased annual earnings by $150 to $500; within five years, however, the differential decreased to about half that amount.

-- We also need to know better who the successful trainers are, and how and when trainees are motivated to make fullest use of training. We should determine, too, who

takes advantage of employer-provided tuition benefits and what factors affect their choices to do so. These questions indicate potential starting points for inquiry that could be stimulated by the Center.

-- The Center should also be responsible, with ERIC and others, for the gathering, analysis, and dissemination of information resulting from training-related research--including that which it directly stimulates, and that of other agencies and organizations, such as the National Institute of Education, the National Governors Association, the Council on State Governments, the Urban Institute, the Committee for Economic Development, the National Alliance of Business, the American Society for Training and Development, the Business Roundtable, and countless universities.

-- The Center would be charged with the responsibility of encouraging the linkage of training programs in firms and government to secondary and higher educational programs.

-- The Center should hold a quarterly forum to bring together business, labor, federal, state, and local governmental officials, and researchers. This group would monitor existing efforts and regularly explore the implications of potential incentives and alternative training policy options. It

should, for example, face the challenge--never before successfully faced--of developing alternatives for integrating the truly unskilled into the workforce. The group could then help devise an appropriate agenda for viable options. The experiences of other countries, such as Britain, Canada, Sweden, Germany, and Japan, in training and retraining the work force should be regularly assessed by the forum to evaluate results relevant to the U.S.

-- The quarterly action forums would also stimulate cooperative efforts in training. Just as it is unwise for states to jostle jealously with each other when they have shared problems, so it is harmful for firms--even competitive ones--not to cooperate to help increase the competency of the entire work force. The inter-agency Center should facilitate broadly based, perhaps geographically-oriented, joint training programs, especially (but not exclusively) for small firms.

-- Some state officials charged with implementing the JTPA have had experience with CETA and other related programs, others have come fresh to their roles. We suggest that the staffs running State Job Training Coordinating Councils, service delivery areas (SDAs) and to a great extent, the staffs of

the governors themselves, should have available to them national executive training and staff development programs. These could be run under the auspices of the Center in Washington and could often be held at regional locations. We suggest that this in-service training function not deal with ordinary managerial issues, such as MIS or budgeting, but focus on the content and evaluation of training and relevant activities. (More general managerial education can be achieved through local universities and other institutions.) We suggest that certain vendors might also be retooled effectively through Center offerings. Believing it appropriate, in many circumstances, to charge fees for public service, we advocate that at least part of the cost of such in-service training be borne by the states (and in some cases by the localities) and by vendors and other private firms.

-- The exuberance now found among state officials regarding JTPA and other state-run programs could also be reinforced effectively by a training advisory service, through which the inter-agency Center would make consulting help available to any state or locality. This assistance would be carried out by a panel of advisers, some drawn from the federal government itself, some from other states, and some from within

the training operations of firms; a few advisers would be qualified professional consultants. We recommend that the administrative costs be borne by the Center, but that advisers' fees and travel expenses be covered by the clients.

-- The Center should act as a stimulator of volunteer efforts such as recommended above for small business, and of counselling programs for the hard-to-place job-seeker.

-- The Center should take the lead in investigating methods of enhancing first work experiences. Just as the first year of school is critical to cultivating modes of learning school subjects, so first job experiences are critical to cultivating not only work skills, but also careful work habits and a positive outlook toward work itself. The Center should explore incentives such as externships, cooperative school-employer ventures, and apprenticeship programs to help enrich first work experiences.

-- Educational materials for training programs are uneven. A few years from now, publishing houses and firms developing video cassettes, video disks, and other training aids will, no doubt, so improve the quality and quantity of these aids that a government

role in their preparation may not be necessary. For the time being, however, there may be significant advantage in the creation, stimulated by the Center, and perhaps with foundation support, of training materials in certain fields--for example, automation--that could be used in numerous settings. These materials would help establish standards, setting the scene for the private sector to assume more fully the function of materials preparation and distribution. (A similar pattern was followed in the extensive re-working of scientific teaching materials in the 1960s and 1970s.) The materials would also be useful in community colleges and other institutions involved in training. As a corollary, a well-maintained, joint public-private library/resource center that would develop a comprehensive collection of training materials is both needed and desirable and should be established in Washington through the Center, in conjunction with an existing agency.

-- As state programs develop further, we expect that staff members will create their own career paths for formulating, managing, and evaluating state training efforts. As happens in virtually all state and local government activities today, national markets will form for career professionals. For several years, those markets will

require careful nurturing to ensure that competent people are attracted to these careers, can grow in them, and are appropriately rewarded. The actual brokerage function should not be performed by the Center but should be reinforced by it. The National Governors Association, which subscribes to similar views, would, however, be an excellent vehicle for this activity.

-- Not having been able to include the defense establishment among our case analyses, we do not have a clear view of military training for civilian-type job skills. However, we suggest that state officials and staffs would benefit from short internships during which they could be exposed to the training methods and experiences for the military and, for that matter, other kinds of federal government training. The inter-agency Center should facilitate such internships.

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The President and the Secretary of Education have vigorously and publicly endorsed the importance of excellence in education for our nation. We applaud that action. Since we are convinced that education and training are intricately intertwined, we urge that the White House amplify its interests in training. We have suggested the inter-agency

Center as a mechanism for the coordination of diverse private and public policies and programs for training. More important than our proposal of this specific mechanism, however, is our conviction that the improvement of our entire work force--including the disadvantaged--through training would strengthen the competitive position of U.S. firms in the world economy, lubricate the market-place for labor, and help our citizens find their work more meaningful and its rewards more satisfying.